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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,710	03/29/2004	Martin Bleck	291958181US4	1453

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EXAMINER
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LEADER, WILLIAM T

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/811,710

Applicant(s)

BLECK ET AL.

Examiner

William T. Leader

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/29/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### DETAILED ACTION

1. Receipt of the preliminary amendments filed on March 29, 2004, and July 13, 2004, is acknowledged. Claims 1-7 have been canceled. New claims 8-16 have been presented.

#### *Claim Rejections - 35 USC § 112*

2. Claims 8-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 9-16 as written are dependent on claim 18. No claim 18 has been presented. Claims 9-16 are *prima facie* indefinite.

4. The newly presented claim 8 is written using a number of terms new found in the specification. The meaning and scope of these terms is not clear. Claim 8 recites a "device support". The term "device support" does not appear in the specification and its meaning is not clear. What device is being supported? Claim 8 recites a processing vessel "carried" by the device support. The term "carried" does not appear in the specification. It is not clear in what manner the device support is "carried". It is noted that the only appearance of any form of the verb "carry" is in the sentence "A wire 585 carries current to finger assemblies when current supply is needed. Does the processing vessel in some manner supply current? Claim 8 recites a "carrying plane". The meaning of "carrying plane" is not clear. A dictionary definition of "plane" relates to a geometric construct. However, dependent claim 16 recites that the carrying plane includes an aperture. It is not apparent how a geometric plane has an aperture. This

implies that the plane as used in claim 8 refers to a physical element of the apparatus. It is not apparent what this element is. Claim 8 recites a "first alignment surface" and a "second alignment surface". The term "alignment surface" does not appear in the specification and its meaning is not clear. What is aligned? The last paragraph of claim 8 recites that the second alignment surface is removably mated with the first alignment surface. "Surface" may be defined as the exterior or upper boundary of an object or body. This definition suggests that the first alignment surface and the second alignment are part of a body. The scope of bodies included is not apparent. Claim 8 recites a "mounting portion". This expression does not appear in the specification. The word "portion" may be defined as a part of something. It is not apparent what the recited portion is a part of. Is it a part of one of the elements previously recited, or is it an additional element of the apparatus? How do the terms relate to the apparatus shown in the figures?

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 8-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As set forth above, numerous terms recited in the newly presented claims do not appear in the specification as filed.

***Claim Rejections - 35 USC § 103***

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 8-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aigo (4,339,319) in view of either Hills et al (4,655,884) or Lichtenberger et al (4,801,947).

9. Claims 9-16 are interpreted as if they had been written to be dependent on claim 8 rather than 18.

10. The Aigo patent is directed to apparatus for electroplating semiconductors wafers. As shown in figure 3 the apparatus includes a base. This may be considered to be a device support (element surrounding conduit 15). The top of the support may be considered to be a carrying plane and also a first alignment surface. The apparatus includes a vessel in which electroplating process takes place. This vessel may be considered to be carried by the device support. Processing liquid is fed to the vessel through passage 11 of the processing vessel. This passage extends below the carrying plane as recited in claim 12. A workpiece support to hold a

semiconductor wafer is positioned proximate the processing vessel. Skirt 18 supports the workpiece support and may be considered a mounting portion since the workpiece support is ultimately supported above this skirt. The workpiece support is supported only above the carrying plane.

11. Claim 8 differs from Aigo by reciting a drive unit to move the workpiece support relative to the processing vessel. Claim 10 recites rotation about a rotation axis. Both Hills et al and Lichtenberger et al disclose that rotation of the workpiece during plating provides a more uniform deposit. See column 7, lines 1-2 of Hills et al and column 4, lines 64-65 of Lichtenberger et al.

12. The prior art of record is indicative of the level of skill of one of ordinary skill in the art. It would have been obvious at the time the invention was made to have provided a drive unit to have rotated the workpiece support of Aigo because more uniform deposition would have been obtained as taught by Hills et al and Lichtenberger et al.

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aigo (4,339,319) in view of either Hills et al (4,655,884) or Lichtenberger et al (4,801,947) as applied to claims 8-14 and 16 above, and further in view of Cancelleri et al (4,192,729) or Osano et al (5,503,730)

14. Claim 15 recites a sheath. Both Cancelleri et al or Osano et al disclose the inclusion of a sheath around an electrode. It would have been obvious at the time the invention was made to have included a sheath around the electrode contact of Aigo as taught by Cancelleri et al or Osano et al because contact with the electrolyte would have been avoided.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245.

The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
William Leader  
June 18, 2005

ROY KING   
SUPERVISORY PATENT EXAMINER  
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